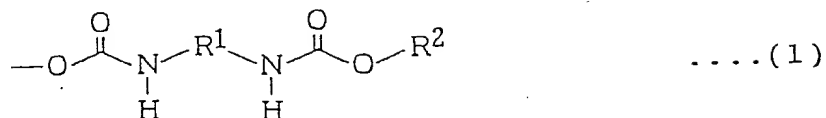


REMARKS

In order to expedite the prosecution of the present application and respond to the Examiner's rejection of Claims 1 and 7 under 35 USC 112, second paragraph, the subject matter of Claim 7 has been incorporated into Claim 1 and the structure of the derivative specifically defined as being formed by substituting the hydroxyl groups of mono-saccharide units constituting the pullulan of the pullulan-cholesterol derivative, in a proportion of 0.01-20 groups per 100 monosaccharide units, by a radical represented by formula (1). As such, Applicants respectfully submit that the structure of the pullulan-cholesterol derivative is specifically described. Additionally, the weight proportion of the cosmetic components has been limited to 50-99.999 wt.%. Support for this amendment is provided on original specification page 15, lines 25-27. No new matter has been added. Since these amendments result in the cancellation of claims and responds to a requirement of form made by the Examiner, entry thereof is deemed proper under 37 CFR 1.116(b). Favorable consideration is respectfully solicited.

Claims 1, 4, 5, 7 and 9 have been rejected under 35 USC 102(b) as being anticipated by Yamaguchi et al. Claim 8 has been rejected under 35 USC 103(a) as being unpatentable over Yamaguchi et al and further in view of Kondo et al and Force et al. Applicants respectfully traverse these grounds of rejection and urge reconsideration in light of the following comments.

As discussed previously, the instant invention is directed to a cosmetic product comprising 99.999-50 wt.% of cosmetic components and 0.001-50 wt.% of a pullulan-cholesterol derivative formed by substituting the hydroxyl groups of mono-saccharide units constituting the pullulan of the pullulan-cholesterol derivative, in a proportion of 0.01-20 groups per 100 monosaccharide units, by a radical represented by the formula (1)



in which R^1 denotes a hydrocarbon group having 1-10 carbon atoms and R^2 represents a cholesteryl group.

The cosmetic product of the present invention has a high moisture-retaining ability, facilitates lamella formation, is high in film-forming ability and has superior stabilization and low oily feel through the incorporation of the inventive pullulan-cholesterol derivative. As such, the cosmetic product of the present invention can be used in improving the conditions of the skin or hair caused by drying, such as rough skin and defective luster, and provides moisturization of the skin and hair by retaining sufficient moisture therein while giving the hair and skin a superior touch and feel. Once again, Applicants emphasize that the presently claimed invention is not shown by the prior art cited by the Examiner.

The Yamaguchi et al reference, EP 0 370 810, discloses a fatty emulsion stabilized by a polysaccharide derivative which can be used in medicine, food and the like, and is disclosed as being a carrier which can embed fat-soluble substances in large quantities. As pointed out in the previous Response, this reference discloses that the pullulan and the cholesterol are bonded together through a spacer having the structure of $-\text{OCH}_2\text{CONHCH}_2\text{CH}_2\text{NH}-\text{R}$, in which, as pointed out by the Examiner, R can be a cholesteryloxycarbonyl group. The Examiner additionally points out that the $-\text{OCH}_2$ group in the spacer disclosed in Yamaguchi et al is actually a $-\text{CH}_2\text{O}-$ group. While Applicants have severe doubts as to whether the hydroxyl group of the polysaccharide is replaced by a $-\text{CH}_2\text{O}-$ group instead of a $-\text{OCH}_2$ group, the fact still remains that a methoxy group is bonded directed to the polysaccharide in the spacer disclosed in Yamaguchi et al while the presently claimed invention requires that a carboxy group be bonded directly to the polysaccharide. That is, if you eliminate the

methoxy group in the spacer disclosed in Yamaguchi et al, then a spacer similar to the present invention would be obtained. However, there is no motivation provided in Yamaguchi et al to eliminate the methoxy group from the spacer disclosed there. Therefore, as pointed out previously, the polysaccharide derivative of Yamaguchi et al is so structurally dissimilar from the presently claimed invention that it does not even present a showing of prima facie obviousness under 35 USC 103.

As discussed above, the Yamaguchi et al reference is concerned with stabilizing a fatty emulsion which is used in medicine, food and the like. The fatty emulsions disclosed in this reference may use oils and fats, such as fish oil, α -linolenic acid and other easily oxidizable and expensive fats, which are suitable for cosmetic use. This suggests that the fatty emulsion is intended to be used in nutrient infusion to be administered to the body via a blood vessel. Page 6, lines 1-4 of this reference supports this position in that it teaches that the emulsion should have a particle size of about 0.3 microns in order to stabilize the emulsion.

In contrast to Yamaguchi et al, the cosmetic product of the present invention is not always in the form of a fatty emulsion and does not contain α -linolenic acid. In the present invention, the cosmetic composition contains a pullulan-cholesterol derivative having pullulan and cholesterol covalently bonded by a specified chemical spacer and other cosmetic components. The other cosmetic components are present in an amount of from 99.999 to 50 wt.% and the pullulan-cholesterol derivative is present in an amount of from 0.001 to 50 wt.%. As shown by the Examples and Comparative Examples contained in the present specification, the cosmetic product of the present invention clearly has unexpectedly superior properties when applied to the skin and hair. This is completely unexpected in light of the disclosure of Yamaguchi et al and, as such, it is respectfully submitted that the presently claimed invention clearly is patentably distinguishable thereover.

The Kondo et al and Force et al references have been cited by the Examiner as secondary references teaching the use of oils, particularly perilla oil and soybean oil, in cosmetic compositions. It is to be pointed out that the perilla oil in Kondo et al is contained in an external medicine and not in a cosmetic composition. Additionally, neither of these references provides any motivation to incorporate the soybean oil of Force et al or the perilla oil of Kondo et al in the composition disclosed in Yamaguchi et al. As such, it is respectfully submitted that either Kondo et al or Force et al in combination with Yamaguchi et al does not present a showing of prima facie obviousness under 35 USC 103.

As discussed above, even though the Examiner has not made a showing of prima facie obviousness under 35 USC 103 with respect to the currently presented claims, Applicants respectfully submit that the objective evidence of record is sufficient to overcome any proper prima facie obviousness rejection under 35 USC 103. That is, as illustrated by the results of the transcription test for oil/water type milky lotions shown in Table 1, the test for improving artificial rough skin by oil/water type milky lotions shown in Table 2, the practical application test with oil/water type milky lotions shown in Table 3, the test for testing the effect of a hair lotion disclosed in Table 5, the transcription test for a liquid lip rouge shown in Table 6 and the test for assessing a colored manicure liquid disclosed in Table 7, as compared with the results of the Comparative Examples, the presently claimed compositions clearly have unobviously superior properties. Nothing in the references cited by the Examiner would suggest such an effect and, as such, it is respectfully submitted that the patentability of the presently claimed invention has been established.

The Examiner is respectfully requested to reconsider the present application and to pass it to issue.

Respectfully submitted,


Terryence F. Chapman

TFC/smd

FLYNN, THIEL, BOUTELL	Dale H. Thiel	Reg. No. 24 323
& TANIS, P.C.	David G. Boutell	Reg. No. 25 072
2026 Rambling Road	Ronald J. Tanis	Reg. No. 22 724
Kalamazoo, MI 49008-1631	Terryence F. Chapman	Reg. No. 32 549
Phone: (269) 381-1156	Mark L. Maki	Reg. No. 36 589
Fax: (269) 381-5465	David S. Goldenberg	Reg. No. 31 257
	Liane L. Churney	Reg. No. 40 694
	Brian R. Tumm	Reg. No. 36 328
	Steven R. Thiel	Reg. No. 53 685
	Sidney B. Williams, Jr.	Reg. No. 24 949

Encl: Postal Card

136.0703